



Infinity NE Switch Mode Rectifier

NE100AC24

24Vdc, 100A dc, 208Vac/240Vac
24Vdc, 1200W, 110Vac/120Vac



The **Infinity NE** Switchmode Rectifier NE100AC24 integrates the latest Switchmode technology with superior power density, protection and control features in a compact, cost efficient power conversion system.

Designed as a key element in the revolutionary **Infinity NE** Universal Power Plant, the NE100AC24 rectifier converts ac input voltage into the dc voltage level required to power end user equipment, as well as to float charge batteries at precise voltage levels.

Operation over a wide temperature range (-40°C to +75°C) makes the NE100AC24 suitable for controlled and uncontrolled environments.

Benefits

- Compact - 1RU form factor providing high power density (24 W/in³)
- Dual Voltage compatibility – the unique connector pin designation allows the rectifier to be used in a “universal” power shelf, alongside rectifiers or DC/DC converters with different output voltages.
- Plug and Play – installation of the rectifier in a shelf connected to a compatible system controller initializes all set up parameters automatically. No adjustments are needed.

- Extended service life – parallel operation with automatic load sharing ensures that parallel units are not unduly stressed even when a unit fails or is removed.
- Monitoring / control – the built in microprocessor controls and monitors all critical rectifier functions and communicates with the system controller using the built in Galaxy Protocol serial interface.
- Fail safe performance – hot insertion capabilities allow for rectifier replacement without system shutdown; soft start and inrush current protection prevent nuisance tripping of upstream breakers.

Features

- Universal Power shelf compatible
- Microprocessor controlled
- 2 – wire digital interface
- Hot pluggable
- Digital load sharing
- Optional Fan filter
- UL recognized
- CE marked

* **UL** is a registered trademark of Underwriters Laboratories, Inc.

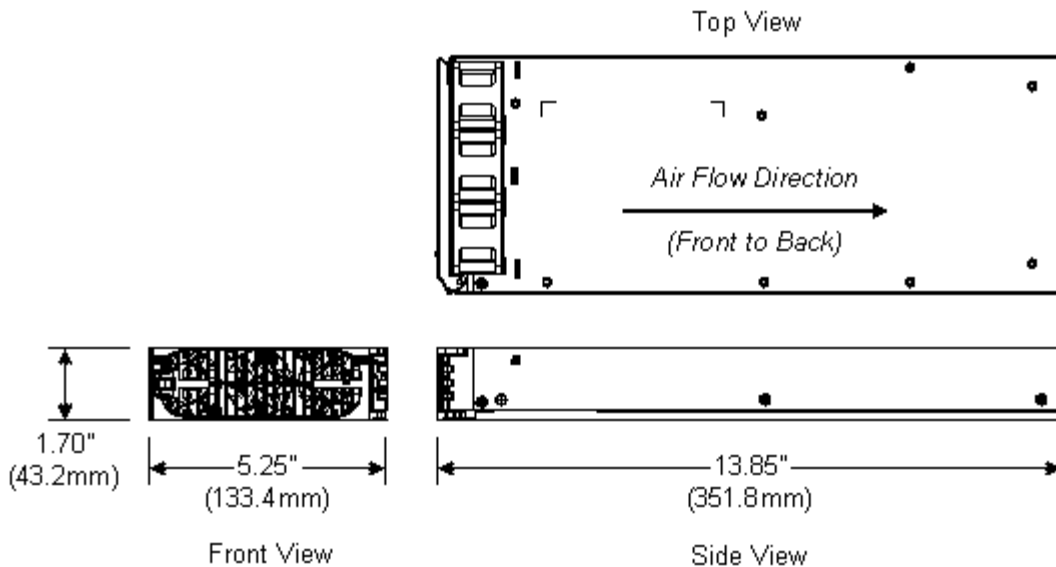
†This product is intended for integration into end user equipment. All the procedures for CE marking of end user equipment should be followed.

Applications

The NE100AC24 rectifier is designed to be an integral part of the **Infinity NE** universal power system. Applications of this system include:

- Wireless Cell Site Power Systems
- Dual Voltage Power Plants
- MTSO and Central Office Power Plants
- Base Station Power Plants

Outline Drawing



Specifications

Electrical

Input

Nominal Voltage, single phase, Hi Line	208 Vac / 240 Vac, 2-wire plus ground
Voltage Limit, steady state	175 Vac – 275 Vac (150 Vac – 300 Vac with reduced performance)
Frequency	45 Hz – 66 Hz
Nominal ac Input current	14.9 A at 208 Vac 12.9 A at 240 Vac
Power Factor	>0.98 at >50% rated output
Total Harmonic Distortion	=5% at full load
Nominal Voltage, single phase, Low Line	110 Vac / 120 Vac
Voltage Limit, Low Line	85 Vac – 140 Vac

Output

Voltage range	21 Vdc to 29 Vdc
Regulation (with controller)	±0.5%
Ripple	100 mV rms
Noise	<2mV psophometric
Output Current	100 A at 27.25 Vdc (Hi Line input) 1200W (Low Line input)

Mechanical

Height	1.70" (43.2 mm)
Width	5.23" (132.8 mm)
Depth	13.85" (351.8 mm)
Weight	5.2 lb (2.4 kg)

Environmental

Efficiency	>90% at full output
Operating Temperature Range	-40°C to 75°C
Operating Relative Humidity	0 - 95% (non-condensing)
Storage Temperature Range	-40°C to 85°C
EMC	FCC, EN 55022, CISPR22, Level A, conducted and radiated
ESD	IEC/EN 61000-2, level 4

Safety/Standards Compliance

Safety Standards	UL1950, EN60950 (IEC950), CSA*234/950
Certification Marks	UL Recognized (Canada and U.S.), CE marking

Control and Monitoring

Visual Indicators	Norm, ACF and Fail LEDs
Serial Interface	2 wire RS485 with GP Protocol

*CSA is a registered trademark of Canadian Standards Association

† VDE is a trademark of Verband Deutscher Elektrotechniker e.V.

Ordering Information

Description	Comcode
NE100AC24 Switchmode Rectifier 24 Vdc, 100 Adc, 208/240 Vac	CC109138302

Related Product Literature

Description	Comcode
Ordering Guide, Infinity NE-M Dual Voltage Plant, +24Vdc / -48Vdc	CC848820201
Ordering Guide, Infinity-D Modular DC Power Plant	CC848848812-MAN

LINEAGE POWER

World Wide Headquarters
3000 Skyline Drive, Mesquite, TX 75149, USA

+1-800-843-1797
Outside U.S.A.: +1-972-284-2626

<http://www.lineagepower.com>
e-mail: techsupport1@lineagepower.com

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